

**PATENT**  
Attorney Docket No. UCSD-04742

**AMENDMENTS TO THE CLAIMS**

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**JAN 11 2007**

1-87. (canceled)

88. (currently amended) A method for screening for modulators of *Thermomyces lanuginosus*- $\gamma$  (TL- $\gamma$ ) comprising in operable order, the steps of:

- (a) providing:
  - (i) biologically active TL- $\gamma$ , wherein the biological activity of said TL- $\gamma$  comprises plus end-directed microtubule motor activity, and wherein said biologically active TL- $\gamma$  comprises ~~a motor domain sequence, wherein said motor domain sequence shares at least sixty percent sequence identity with the sequence comprising~~ amino acids 1 through 357 of SEQ ID NO:1,
  - (ii) a candidate agent, wherein said candidate agent is provided in a test concentration and a control concentration, and
  - (iii) a testing assay;
- (b) contacting said biologically active TL- $\gamma$  with said test concentration of said candidate agent in said testing assay to produce a test mixture;
- (c) contacting said biologically active TL- $\gamma$  with said control concentration of said candidate agent in said testing assay to produce a control mixture;
- (d) assaying the level of TL- $\gamma$  activity in said test mixture;
- (e) assaying the level of TL- $\gamma$  activity in said control mixture;
- (f) comparing the TL- $\gamma$  activity of said test mixture and said control mixture, wherein the TL- $\gamma$  activity comprises one or more of microtubule gliding, microtubule binding, microtubule depolymerization and ATPase activity, and wherein differences in the TL- $\gamma$  activity in said test mixture and said control mixture indicate that said candidate agent is a modulator of TL- $\gamma$ .

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89. (previously presented) The method of Claim 88, wherein said testing assay is selected from the group consisting of plus-end directed microtubule motor activity assays, binding activity assays, and ATPase activity assays.

90. (previously presented) The method of Claim 88, wherein said biologically active TL- $\gamma$  specifically binds to polyclonal antibodies directed against TL- $\gamma$ .

91. (previously presented) The method of Claim 88, wherein said biologically active TL- $\gamma$  is isolated from a cell sample.

92. (previously presented) The method of Claim 88, wherein said biologically active TL- $\gamma$  is recombinant.

93. (canceled)

94. (previously presented) The method of Claim 88, wherein said candidate agent is selected from the group consisting of antibodies, proteins, oligonucleotides, peptides, saccharides, fatty acids, steroids, purines, and pyrimidines.

95. (previously presented) The method of Claim 88, wherein said testing assay is conducted in a high-throughput screen.

96-101. (canceled)

102. (new) The method of Claim 88, wherein said biologically active TL- $\gamma$  further comprises amino acids 357 to 442 of SEQ ID NO:1.

103. (new) The method of Claim 102, wherein said biologically active TL- $\gamma$  further comprises amino acids 443 to 601 of SEQ ID NO:1.

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104. (new) The method of Claim 103, wherein said biologically active TL- $\gamma$  further comprises amino acids 602 to 784 of SEQ ID NO:1.